

## IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1           1-29. (Canceled)

1           1-52. (Canceled)

1           53. (Currently Amended) A printer configured for rendering data an XML  
2 document according to a formatting template ~~for printing an XML document~~, the formatting  
3 template comprising an XML Descriptor (XMD) associated with an XML data element of  
4 the XML document, wherein the XMD is identified by an associated qualified tag having a  
5 concatenation of a plurality of XML start tags representing start tags hierarchically traversed  
6 in the XML document to reach the XML data element, the XMD providing formatting to  
7 content associated with the XML data element; the printer further configured for printing the  
8 rendered XML document according to the template.

1           54. (Currently Amended) The ~~formatting template~~ printer of claim 53, wherein  
2 the data map comprises a chain of XML descriptors for formatting attributes if XML  
3 elements.

1           55. (Currently Amended) The ~~formatting template~~ printer of claim 53, wherein an  
2 XML descriptor that does not have a matching qualified tag is skipped and a next XML  
3 descriptor matching a start tag is used in formatting the XML data.

1           56.     (Previously Presented)       A printing system, comprising:  
2           a spooler for receiving printable information from the print channel;  
3           a print services facility for parsing an XML file; and  
4           a printer for printing the print steam according to the formatting defined by the  
5     formatting template;  
6           wherein the formatting template includes an XML Descriptor (XMD)  
7     associated with an XML data element of the XML document, wherein the XMD is identified  
8     by an associated qualified tag having a concatenation of a plurality of XML start tags  
9     representing start tags hierarchically traversed in the XML document to reach the XML data  
10    element, the XMD providing formatting to content associated with the XML data element.

1           57.     (Previously Presented)       The formatting template of claim 56, wherein  
2     the data map comprises a chain of XML descriptors for formatting attributes if XML  
3     elements.

1           58.     (Previously Presented)       The formatting template of claim 56, wherein  
2     the parser skips an XML descriptor that does not have a matching qualified tag and uses a  
3     next XML descriptor having a matching start tag to format the XML data.

1           59.     (Previously Presented)       The formatting template of claim 56 further  
2     comprising a buffer for storing start tags in order as the XML file is parsed.

1           60.     (Previously Presented)     A method for printing XML documents directly  
2     using a formatting template, comprising:  
3           placing an XML document to be printed on a server spool;  
4           parsing the XML document to identify start tags hierarchically traversed in the XML  
5     document to reach an XML data element;  
6           searching a data map comprising XML descriptors identified by an associated  
7     qualified tag having a concatenation of a plurality of XML start tags until a qualified tag  
8     associated with an XML descriptor matches the identified start tags hierarchically traversed  
9     in the XML document to reach the XML data element;  
10          formatting the XML data element according the XML descriptor associated with the  
11     qualified tag having a concatenation of a plurality of XML start tags matching the identified  
12     start tags hierarchically traversed in the XML document to reach the XML data element;  
13          merging the XML element associated with the XML descriptor associated with the  
14     qualified tag having a concatenation of a plurality of XML start tags matching the identified  
15     start tags hierarchically traversed in the XML document to reach the XML data element to  
16     produce a formatted print data stream; and  
17          printing a document using the produced formatted print data stream.

1           61.     (Previously Presented)     The method of claim 60 further comprising  
2     skipping an XML descriptor that does not have a matching qualified tag and using a next  
3     XML descriptor matching a start tag to format the XML data.

1           62.     (Previously Presented)     An article of manufacture comprising a program  
2     storage medium readable by a computer, the medium tangibly embodying one or more

3 programs of instructions executable by the computer to perform a method for printing XML  
4 files directly using a formatting template, the method comprising:

5 placing an XML document to be printed on a server spool;

6 parsing the XML document to identify start tags hierarchically traversed in the XML  
7 document to reach an XML data element;

8 searching a data map comprising XML descriptors identified by an associated  
9 qualified tag having a concatenation of a plurality of XML start tags until a qualified tag  
10 associated with an XML descriptor matches the identified start tags hierarchically traversed  
11 in the XML document to reach the XML data element;

12 formatting the XML data element according the XML descriptor associated with the  
13 qualified tag having a concatenation of a plurality of XML start tags matching the identified  
14 start tags hierarchically traversed in the XML document to reach the XML data element;

15 merging the XML element associated with the XML descriptor associated with the  
16 qualified tag having a concatenation of a plurality of XML start tags matching the identified  
17 start tags hierarchically traversed in the XML document to reach the XML data element to  
18 produce a formatted print data stream; and

19 printing a document using the produced formatted print data stream.

1 63. (Previously Presented) The article of manufacture of claim 41 further  
2 comprising skipping an XML descriptor that does not have a matching qualified tag and  
3 using a next XML descriptor matching a start tag to format the XML data.